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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,987	12/10/2001	Takayuki Nomoto	041514-5162	2829

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT PAPER NUMBER

2653

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/006,987

Applicant(s)

NOMOTO ET AL.

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/18/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/6 & 11/18/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

Applicants' response of 11/18/04 has been considered with the following results.

#### *Information Disclosure Statement*

The IDS of 8/6/04 and 11/18/04 have been received and made of record. Applicants are thanked for providing such.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1 and 3 are rejected under 35 U.S.C. 103 (a) as being obvious over WO 00/65584 and further considered with either JP 10-320835 or Watabe.

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Although the examiner is relying upon the WO document, the examiner is only providing a copy of the US patent equivalent as an English translation of such a document

The following analysis is made:

Claim 1

WO 00/65584 (US 6512735)

An optical disc

comprising an information recording layer

see abstract/title

where information is recorded as an array

see col. 1 line 19 -

of pits at a predetermined track pitch, and

a light transmitting layer formed on said

information recording layer and having a

film thickness of 0.13 mm or less,

the information recorded therein being

col. 2 line 4

reproduced upon irradiation of a beam of

light having a wavelength ranging from

400 nm to 415 nm onto said information

recording layer through said light transmitting

layer from an objective lens having a numerical

aperture ranging from 0.75 to 0.86,

wherein a taper angle of said pits is in a range

see secondary references

of 80 degrees to 90 degrees.

With respect to the wavelength, thickness and numerical aperture limitations of claim 1, applicants' attention is drawn to the col. 1 line 29 to col. 2 lines 4, which discloses such limitations.

Although the document does describe a tapered angle range, the specified range is not clearly depicted.

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JP 10-320835 describes in this environment the ability of varying the tapered angle range of the pit as necessary – see either the abstract, or the attached MAT (machine assisted translation) of the JP document starting at paragraphs 17-19 for instance, and also starting at paragraph 46 – plus.

Alternatively, Watabe col. 6 lines 3-39 also depict a range that meets the claimed limitation.

It would have been obvious to modify the base system with the teaching from either of the secondary references, motivation is as discussed in the secondary references.

With respect to the limitations of claim 3, such is considered inherently present –see the description of the tapered angle in the base reference for instance.

#### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 3 above, and further in view of Sugaya et al.

Sugaya et al discloses in this environment the ability of having an angled tapered wall for the pits, as well as the establishment of the track pitch within the range cited.

It would have been obvious to modify the base system of the WO reference with the above teaching from Sugaya et al, motivation is to vary the track pitch accordingly in order to increase the recording density.

#### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 3 as stated above, and further in view of Sugaya et al.

The limitations of claim 7 are drawn to the track pitch limitation already presented by claim 5.

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Sugaya et al discloses in this environment the ability of having an angled tapered wall for the pits, as well as the establishment of the track pitch within the range cited.

It would have been obvious to modify the base system relied upon with respect to claim 3, motivation is as stated above with respect to claim 5 increase the recording density.

**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fukuoka et al – see discussion with respect to the angle of the pit.

Yamatsu et al, see the discussion wrt fig. 6 starting at col. 6 line 56.

Aratani et al, see the discussion with respect to figures 1 & 2, film thickness and reflectivity in this environment.

**Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

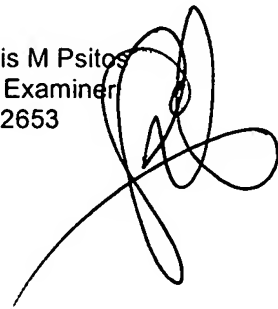
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos  
Primary Examiner  
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A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the left.

AMP